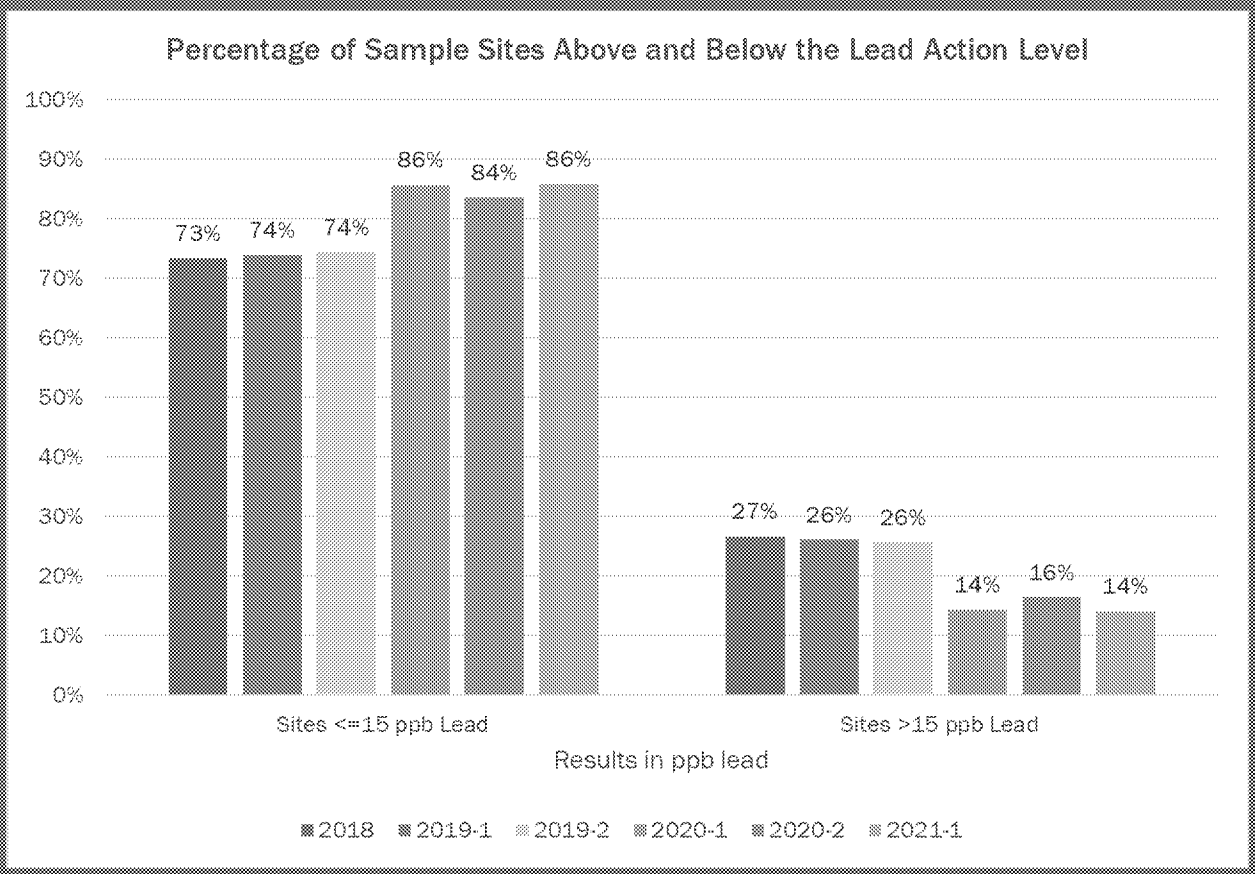
EGLE MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY

BENTON HARBOR DRINKING WATER LEAD TESTING 2018-PRESENT

The State of Michigan is committed to assisting communities in removing all lead service lines as part of the elimination of lead in drinking water and ensuring that all Michiganders—and notably those in Environmental Justice communities with limited resources like Benton Harbor—have safe drinking water while that work is underway.

In Benton Harbor, the municipal water supply has exceeded the federal drinking water standard* for lead for three consecutive years. That is the focus of urgent and immediate efforts to correct the problem, and to ensure residents have access to safe water in the interim.



Since 2018, the percentage of water samples above the federal exceedance level have declined, while samples below the level increased. (The percentage of samples with zero lead detected has almost doubled from 17 to 33% during that period.)

**The federal action standard for lead in drinking water is 15 parts per billion (ppb).*

How are lead levels in Benton Harbor trending?

The answer is a bit complicated.

The percentage of samples with zero detection has doubled during the same time period the exceedances have occurred. Samples that did detect lead, but below the federal standard, also showed modest declines in lead levels. So, while the high "spikes" in the samples continue to be unacceptably high, the remainder of the samples generally show reduced lead levels over time.

That seems at odds with the continuing high exceedances. How can both be true?

Federal exceedances are based on lead levels in the 90th percentile of a sampling period. For example, if 60 water samples are analyzed, and 6 are above the federal action threshold, it would violate the federal standard.

Because this method is intentionally designed to only consider higher levels when determining compliance and driving protective actions, it does not account for data in samples below the 90th percentile. In Benton Harbor's case, data shows modest improvement below the 90th percentile for samples with lead levels below the federal standard and significant improvement in the percentage of samples where no lead was detected.

So, what is happening?

The city of Benton Harbor and the Michigan Department of Environment, Great Lakes, and Energy (EGLE) believe adjustments to the corrosion control phosphates intended to coat the metal and keep it from contacting water is working. Short term spikes in some lead levels were anticipated in the initial phase of additional corrosion protection as the pipes and fixtures react to the new chemistry and potentially scour off small metal particles.

When will the city be back in compliance?

The next round of compliance sampling will be completed in December. In addition, a corrosion study is being completed that will also further refine the chemical applications being used to increase corrosion protection. Local, state, federal and nonprofit resources being brought to bear on this problem are designed to ensure the safest, quickest path to both compliance and the elimination of lead in drinking water in Benton Harbor and statewide.